

Work Order ID 33846 - 2

July 2, 2009 9:48:14 AM



Page 1

Item ID: D3391-025

Accept



Setup Start



Revision ID: H

Stop



Item Name: Aft Tube Assembly

Start Date: 7/15/09 Start Qty: 3.00



Cust Item ID:

Required Date: 8/03/09 Req'd Qty: 3.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3391

Rev H

100

0.00



MORI SEIKI CNC LATHE LARGE

Mori Seiki

Memo

0.00

Mori Seiki CNC Lathe Large

Turn as per Folio FA599

Rev: ____ & Dwg D3391 Rev: ____

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

120

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1-Machine as per Folio FA 599 Rev: ____ & Dwg D3391 Rev: ____ 2-Deburr



Work Order ID 33846

July 2, 2009 9:48:14 AM

Page 2

Item ID: D3391-025
Revision ID: H
Item Name: Aft Tube Assembly

Accept



Setup Start



Stop



Start Date: 7/15/09 Start Qty: 3.00
Required Date: 8/03/09 Req'd Qty: 3.00



Cust Item ID:

Customer:

Reference:

Run Start



Stop



Approvals: Process Plan: Date: Tooling: Date:
QC: Date: SPC (Y/N): Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

140



QC

Quality Control

QC8- Inspect parts - second check

0.00

Memo

0.00

150



Skidtubes

Skidtubes

Skidtubes

0.00

Memo

0.00

1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803

Work Order ID 33846

July 2, 2009 9:48:14 AM



Page 3

Item ID: D3391-025
Revision ID: H
Item Name: Aft Tube Assembly

Accept



Setup Start



Stop



Start Date: 7/15/09 Start Qty: 3.00
Required Date: 8/03/09 Req'd Qty: 3.00



Cust Item ID:
Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:
QC: Date: SPC (Y/N): Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 CNC Bend 1 CNC Delta 100 Bender	BENDING MACHINE - SKIDTUBES Memo Form as per Dwg D3391 Using Bend Prog 3391025	0.00 0.00		✓					
170 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00		✓					
180 Skidtubes Skidtubes	Skidtubes Memo 1-Open Aft cap pilot hole to .208" as per Dwg D3391 2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only. 3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217 Wearplate Jig . *****Do Not Open To Finished Size***	0.00 0.00		✓					

Work Order ID 33846



Page 4

July 2, 2009 9:48:14 AM

Item ID: D3391-025

Accept



Setup Start



Revision ID: H

Stop



Item Name: Aft Tube Assembly

Start Date: 7/15/09 Start Qty: 3.00



Cust Item ID:

Required Date: 8/03/09 Req'd Qty: 3.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

200

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

210

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

Work Order ID 33846

July 2, 2009 9:48:14 AM



Page 5

Item ID: D3391-025
Revision ID: H
Item Name: Aft Tube Assembly

Accept



Setup Start



Stop



Start Date: 7/15/09 Start Qty: 3.00

Required Date: 8/03/09 Req'd Qty: 3.00



Cust Item ID:

Customer:

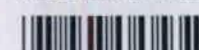
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220 Skidtubes	Skidtubes	0.00							
	Memo	0.00							
	Instal spacers as per dwg D3391 A/R Magnabond 6398 Batch: _____ exp. date : _____ cure time 12hrs as per QSI0015								
230 QC	QC5- Inspect part completeness to step on W/O	0.00							
	Memo	0.00							
240 Powdercoat	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
	Memo	0.00							
	START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____								

Work Order ID 33846

July 2, 2009 9:48:14 AM



Page 6

Item ID: D3391-025

Accept



Setup Start



Revision ID: H

Item Name: Aft Tube Assembly

Stop



Start Date: 7/15/09 Start Qty: 3.00



Cust Item ID:

Required Date: 8/03/09 Req'd Qty: 3.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

250

QC3- Inspect Part Finish

0.00

BR 09-07-2 ①



QC

Memo

0.00

Quality Control

260

HandFinishing

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install inserts as per Dwg D3391
D3391 A/ R Sikaflex-241/-291 0111553
date: 10/01 2-Install Aft Cap as per Dwg
Sikaflex expiry

bl/mo 09/07/06

270

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

=> 8/01/06

①

②

Work Order ID 33846

July 2, 2009 9:48:14 AM



Page 7

Item ID: D3391-025

Accept



Setup Start



Revision ID: H

Stop



Item Name: Aft Tube Assembly

Start Date: 7/15/09 Start Qty: 3.00



Cust Item ID:

Required Date: 8/03/09 Req'd Qty: 3.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

280

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

0.00

Packaging

PP

51414

2/9/15p @

290

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/11/25

MF 09-09-04

Picklist Print

July 2, 2009 9:48:13 AM

Page 1

Work Order ID: 33846

Parent Item: D3391-025RevH

Parent Item Name: Aft Tube Assembly

Comments:

Start Date: 7/15/09

Required Date: 8/03/09

Start Qty: 3.00

Required Qty: 3.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C10L		Purchased	No			100	Each	5,096.000	30.0000			



washer

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST

5096

103585

100

112116

4996

220

Each

22.0000

3.0000

D6014-090RevA

Manufactured

No



ALUMINUM EXTRUSION

Warehouse Loc Qty Loc Code
Location

Main Warehouse

LG

22

42768

22

260

Each

7,849.000

42.0000

ALS4-1032-130

Purchased

No



Insert

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST

7849

110511

7849

UMD 09/07/06

pulled on
original w/o

UMD 09/07/06

Picklist Print

July 2, 2009 9:48:13 AM

Page 2

Work Order ID: 33846

Parent Item: D3391-025RevH

Parent Item Name: Aft Tube Assembly

Comments:

Start Date: 7/15/09

Required Date: 8/03/09

Start Qty: 3.00

Required Qty: 3.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
ALS4-1032-225		Purchased	No			260	Each	9,205.000	36.0000			



Insert

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

9205

107441

28

110768

9177

260

Each

324.0000

18.0000

AN3C4A



BOLT

Purchased

No

umo 09/07/06

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

324

112082

324

260

Each

546.0000

12.0000

AN3C5A



Bolt

Purchased

No

umo 09/07/06

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

546

111424

8

111707

538

umo 09/07/06

July 2, 2009 9:48:13 AM

Shop Packet Print

Page 2

Picklist Print

July 2, 2009 9:48:13 AM

Page 3

Work Order ID: 33846

Parent Item: D3391-025RevH

Parent Item Name: Aft Tube Assembly


Comments:

Start Date: 7/15/09

Required Date: 8/03/09

Start Qty: 3.00

Required Qty: 3.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
✓ D2646RevC  Aft Cap		Manufactured	No			260	Each	60.0000	3.0000			

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

60

20208

0

43801

2

46327

8

48109

50

X1

UMD 09/07/00

✓ D3537-1RevC

Wearpad

Manufactured No

260 Each 26.0000 3.0000

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

26

47715

1

48162

25

X1

UMD 09/07/00

July 2, 2009 9:48:13 AM

Shop Packet Print

Page 3

Picklist Print

July 2, 2009 9:48:13 AM

Work Order ID: 33846

Parent Item: D3391-025RevH

Parent Item Name: Aft Tube Assembly

Comments:

Start Date: 7/15/09

Required Date: 8/03/09

Start Qty: 3.00

Required Qty: 3.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3670-4-200RevA

Manufactured

No

260

Each

179.0000

12.0000



SPACER

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

179

46106

16

47122

36

48198

42

48269

85

D3672-1RevB

Manufactured

No

260

Each

784.0000

6.0000



Phenolic Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

784

39275

19

42329

143

47628

622

UMF 09-09-04.-

UMD 09/07/06

July 2, 2009 9:48:13 AM

Shop Packet Print

Date: Thursday, 14/05/2009 11:29:07 AM
 User: Melanie Fauteux

Process Sheet

DUPLICATE

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: AFT TUBE ASSEMBLY
Job Number	: 33846		
Estimate Number	: 10699		
P.O. Number	:	Part Number	: D3391025
This Issue	: 14/05/2009 S.O. No. :	Drawing Number	: D3391 UNDER REVIEW
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: 08/08/2007 Type : LANDING GEAR	Drawing Revision	: F
Previous Run	: 33648	Material	:
Written By	:	Due Date	: 15/08/2007 Qty: 1 Um: Each
Checked & Approved By	: <u>mf 09-05-14</u>		
Comment	: Est Rev B 06-02-07 ECN773 dwg rev. D EC Est Rev: C 06-03-28 Update Manufacturing Instructions JLM est rev D 07.03.20 revF dwg ec		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	✓ D6014090	ALUMINUM EXTRUSION
-----	------------	--------------------



Comment: Qty.: 1.0000 f(s)/Unit Total: 3.0000 f(s)

ALUMINUM EXTRUSION

Pick:

Qty	Part Number	Description	Batch
1	D6014-090	Extrusion	26546

Identify as D3391-3

2.0	✓ MORI SEIKI	MORI SEIKI CNC LATHE LARGE
-----	--------------	----------------------------



Comment: MORI SEIKI CNC LATHE LARGE

Turn as per Folio FA599 Rev: AA & Dwg D3391 Rev: C

3.0	✓ QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-------	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

4.0	✓ HAAS1	HAAS CNC VERTICAL MACHINING #1
-----	---------	--------------------------------



Comment: HAAS

1-Machine as per Folio FA 599 Rev: AA & Dwg D3391 Rev: F

2-Deburr

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 14/05/2009 11:29:07 AM
User: Melanie Fauteux

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT TUBE ASSEMBLY

Job Number: 33846

Part Number: D3391025

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

✓ QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

07/05/11

6.0

✓ QC8

SECOND CHECK



Comment: SECOND CHECK

07/11/5

7.0

✓ SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803

DP

7-11-5

8.0

✓ BENDING

BENDING MACHINE - SKIDTUBES



Comment: NC Bender

Form as per Dwg D3391 Using Bend Prog 3391025

FL 5-11-07

9.0

✓ QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/11/5

10.0

✓ SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only.

3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217 Wearplate Jig .

*****Do Not Open To Finished Size*****

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2 previously drilled aft wearplate holes.

5-Open up all wearshoe & wearplate and float bag holes to .257" + countersink as per Dwg D3391.

6-Debur



Tools: rill

9-5-20

PA

W/O: 33846

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
9-6-0		Spacer batch # <u>B416106</u> (4) <u>M 9-6-9</u> Magnabond 6398 batch # <u>M111249</u> exp. date <u>12-8-1</u>				 05-11-25	 05-11-25

Part No: D 3391-025 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 14/05/2009 11:29:07 AM
User: Melanie Fauteux

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT TUBE ASSEMBLY

Job Number: 33846

Part Number: D3391025

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/05/20 @

12.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

D H 9-5-20

13.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

HL 09-06-11

14.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

HL 09-07-20

15.0

D2646

Aft Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total : 3.0000 Each(s)

Aft Cap

Pick:

Qty

Part Number Description Batch

1

D2646

Aft Cap

446327(x1) mo 09/07/06

16.0

D35371

Wearpad



Comment: Qty.: 1.0000 Each(s)/Unit Total : 3.0000 Each(s)

WEARPAD

m45162 (x1) mo 09/07/06

17.0

D35377

Wearpad



Comment: Qty.: 1.0000 Each(s)/Unit Total : 3.0000 Each(s)

Wearpad

m45408 (x1) mo 09/07/06

18.0

D35531

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 3.0000 Each(s)

Gasket

m33868 (x1) mo 09/07/06

D3391025
B33846
11/06/2009
14.10
S.054
#1 323.4 F
#2
#3 30m F
#4

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 14/05/2009 11:29:07 AM
User: Melanie Fauteux

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT TUBE ASSEMBLY

Job Number: 33846

Part Number: D3391025

Job Number:



Seq. #:

Machine Or Operation:

Description :

19.0

D35533

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 3.0000 Each(s)

Gasket

m 33870

md 09/07/06

20.0

AESS10KB366

INSERT



Comment: Qty.: 14.0000 Each(s)/Unit Total : 42.0000 Each(s)

Insert

Pick:

Qty Part Number Description Batch

14 AESS10KB366 Insert

u/a

21.0

AESS10KB316

INSERT



Comment: Qty.: 2.0000 Each(s)/Unit Total : 6.0000 Each(s)

INSERT

Pick:

Qty Part Number Description Batch

2 AESS10KB316 Insert

or NAS1330C3KB316

u/a

22.0

AESS10KB266

INSERT



Comment: Qty.: 6.0000 Each(s)/Unit Total : 18.0000 Each(s)

INSERT

Pick:

Qty Part Number Description Batch

2 AESS10KB266 Insert

or NAS1330C3KB266

u/a

23.0

NAS1330C3KB166

INSERT



Comment: Qty.: 12.0000 Each(s)/Unit Total : 36.0000 Each(s)

INSERT

Pick:

Qty Part Number Description Batch

8 NAS1330C3KB166 Insert

u/a

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 14/05/2009 11:29:07 AM
User: Melanie Fauteux

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT TUBE ASSEMBLY

Job Number: 33846

Part Number: D3391025

Job Number:



Seq. #:

Machine Or Operation:

Description :

24.0



AN3C4A

BOLT



Comment: Qty.: 2.0000 Each(s)/Unit Total : 6.0000 Each(s)

Bolt

Pick:

Qty Part Number Description Batch

2

AN3C4A

Bolt

m112082 (X6)

md 09/07/06

25.0



AN3C5A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total : 24.0000 Each(s)

Bolt



m111707 (X4)

md 09/07/06

26.0



AN960C10L

washer



Comment: Qty.: 10.0000 Each(s)/Unit Total : 30.0000 Each(s)

Inventory

Pick:

Qty Part Number Description Batch

2

AN960C10L

Washer

m112116 (X10)

md 09/07/06

27.0



NAS1515H3L

WASHER



Comment: Qty.: 2.0000 Each(s)/Unit Total : 6.0000 Each(s)

WASHER

Pick:

Qty Part Number Description Batch

2

NAS1515H3L

Washer

na 5

28.0



HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Install inserts as per Dwg D3391

2-Install Aft Cap as per Dwg D3391

A/R Sikaflex-241/-291 m111557

Sikaflex expiry date: 10/01

bl/md 09/07/06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 14/05/2009 11:29:07 AM
User: Melanie Fauteux

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT TUBE ASSEMBLY

Job Number: 33846

Part Number: D3391025

Job Number:



Seq. #:

Machine Or Operation:

Description :

29.0



QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S. Corbala 12/09

30.0



PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

31.0



QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



Date: Thursday, 14/05/2009 11:15:27 AM

User: Linda Lazzelle

JOB HISTORY : DETAIL

Job Number	: 33846	Customer	: Dart Helicopters Services
Estimate Number	: 10699	DWG Name	: AFT TUBE ASSEMBLY
Purchase Order #	:	Part Number	: D3391025
Complete Date	: 16/11/2007 2:57:57	DWG Number	: D3391 UNDER REVIEW
		Rev.	: F

DUEDATE	ORDERED	DELIVERED
15/08/2007	3	3

1.0 D6014090-ALUMINUM EXTRUSION		INVENTORY ITEM			
DATE	EMPLOYEE	TYPE	Qty	COST	
16/11/2007	LACE01: Laccelle, Linda	D6014090	3.000	\$1022.69	Lot # 26546 Qty. 3
Subtotal:	QTD:	3	CTD:	0	\$1022.69

2.0 MORI SEIKI		Internal Operation					
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach. Cost
08/08/2007	FOUR01: Fournier, Sebastien	Run	0.000	3.63	\$65.81	3.63	103.98
09/08/2007	FOUR01: Fournier, Sebastien	Setup	0.000	7.31	\$132.53	7.31	209.40
15/08/2007	FOUR01: Fournier, Sebastien	Setup	1.000	3.85	\$69.80	3.85	110.28
16/08/2007	FOUR01: Fournier, Sebastien	Run	5.000	8.68	\$157.37	8.68	248.64
Subtotal:	QTD:	6	CTD:	0	23.47	\$1097.81	

4.0 HAAS1		Internal Operation					
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach. Cost
02/11/2007	GAUT01: Gauthier, Brett	Run	0.000	7.66	\$138.88	7.66	219.43
03/11/2007	DROU01: Drouin, Simon	Run	5.000	11.91	\$215.93	11.91	341.17
Subtotal:	QTD:	5	CTD:	0	19.57	\$915.41	

8.0 BENDING		Internal Operation					
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach. Cost
02/11/2007	LARO01: Larocque, Eric	Run	0.000	1.50	\$24.69	1.50	31.11
02/11/2007	ROCH01: Rochon, Stephane	Run	0.000	1.50	\$24.69	1.50	31.11
05/11/2007	ROCH01: Rochon, Stephane	Run	5.000	1.71	\$28.15	1.72	35.67
05/11/2007	LARO01: Larocque, Eric	Run	5.000	1.71	\$28.15	1.72	35.67
Subtotal:	QTD:	10	CTD:	0	6.42	\$239.24	

10.0 SKIDTUBES 1		Internal Operation					
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach. Cost
06/11/2007	LEVI01: Levis, Sylvain	Run	1.000	1.27	\$20.90	1.27	26.33
06/11/2007	PAQU03: Paquette, Dan	Run	3.000	0.78	\$12.84	0.78	16.18
15/11/2007	RAIN01: Rainey, Jamie	Run	1.000	3.52	\$57.94	3.52	73.00
Subtotal:	QTD:	5	CTD:	0	5.57	\$207.19	

12.0 HAND FINISHING1		Internal Operation					
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach. Cost
15/11/2007	RAIN01: Rainey, Jamie	Run	1.000	0.62	\$10.21	0.62	19.81
Subtotal:	QTD:	1	CTD:	0	0.62	\$30.02	

13.0 POWDER COATING		Internal Operation					
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach. Cost
16/11/2007	ROQU01: Roquebrune, Benoit	Run	3.000	0.64	\$8.80	0.64	17.07
16/11/2007	GREG01: Gregory, Marc	Run	3.000	0.67	\$8.99	0.67	17.44
Subtotal:	QTD:	6	CTD:	0	1.31	\$52.30	

Date: Thursday, 14/05/2009 11:15:28 AM

User: Linda Lacelle

JOB HISTORY : DETAIL

Job Number : 33846		Customer : Dart Helicopters Services				
Estimate Number : 10699		DWG Name : AFT TUBE ASSEMBLY				
Purchase Order # :		Part Number : D3391025				
Complete Date : 16/11/2007 2:57:57		DWG Number : D3391 UNDER REVIEW				
		Rev. : F				
15.0 D2646-Aft Cap INVENTORY ITEM						
DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	D2646	2.000		\$25.79	Lot # 32427 Qty. 2
Subtotal:		QTD:	0	CTD:	2	\$25.79
16.0 D35371-Wearpad INVENTORY ITEM						
DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	D35371	2.000		\$40.67	Lot # 34943 Qty. 2
Subtotal:		QTD:	0	CTD:	2	\$40.67
17.0 D35377-Wearpad INVENTORY ITEM						
DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	D35377	2.000		\$73.15	Lot # 33869 Qty. 2
Subtotal:		QTD:	0	CTD:	2	\$73.15
18.0 D35531-Gasket INVENTORY ITEM						
DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	D35531	2.000		\$2.37	Lot # 31630 Qty. 2
Subtotal:		QTD:	0	CTD:	2	\$2.37
19.0 D35533-Gasket INVENTORY ITEM						
DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	LACE01: Lacelle, Linda	D35533	3.000		\$3.91	Lot # 32745 Qty. 3
Subtotal:		QTD:	3	CTD:	0	\$3.91
20.0 AESS10KB366-INSERT INVENTORY ITEM						
DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	AESS10KB366	28.000		\$197.66	Lot # 104192 Qty. 28
Subtotal:		QTD:	0	CTD:	28	\$197.66
21.0 AESS10KB316-INSERT INVENTORY ITEM						
DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	AESS10KB316	4.000		\$13.00	Lot # 17905 Qty. 4
Subtotal:		QTD:	0	CTD:	4	\$13.00
22.0 AESS10KB266-INSERT INVENTORY ITEM						
DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	AESS10KB266	12.000		\$72.74	Lot # 17905 Qty. 12
Subtotal:		QTD:	0	CTD:	12	\$72.74
23.0 NAS1330C3KB166-INSERT INVENTORY ITEM						
DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	NAS1330C3KB166	24.000		\$67.20	Lot # 106192 Qty. 24
Subtotal:		QTD:	0	CTD:	24	\$67.20

Date: Thursday, 14/05/2009 11:15:28 AM
 User: Linda Lacelle

JOB HISTORY : DETAIL

Job Number	: 33846	Customer	: Dart Helicopters Services
Estimate Number	: 10699	DWG Name	: AFT TUBE ASSEMBLY
Purchase Order #	:	Part Number	: D3391025
Complete Date	: 16/11/2007 2:57:57	DWG Number	: D3391 UNDER REVIEW
		Rev.	: F

24.0 AN3C4A-BOLT INVENTORY ITEM

DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	AN3C4A	6.000		\$1.86	Lot # 106043 Qty. 6
Subtotal:	QTD:	0 CTD:	6		\$1.86	

25.0 AN3C5A-Bolt INVENTORY ITEM

DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	AN3C5A	24.000		\$7.98	Lot # 106112 Qty. 24
Subtotal:	QTD:	0 CTD:	24		\$7.98	

26.0 AN960C10L-washer INVENTORY ITEM

DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	AN960C10L	30.000		\$1.35	Lot # 106242 Qty. 30
Subtotal:	QTD:	0 CTD:	30		\$1.35	

27.0 NAS1515H3L-WASHER INVENTORY ITEM

DATE	EMPLOYEE	TYPE	Qty		COST	
16/11/2007	GREG01: Gregory, Marc	NAS1515H3L	6.000		\$0.54	Lot # 105116 Qty. 6
Subtotal:	QTD:	0 CTD:	6		\$0.54	

28.0 HAND FINISHING1 Internal Operation

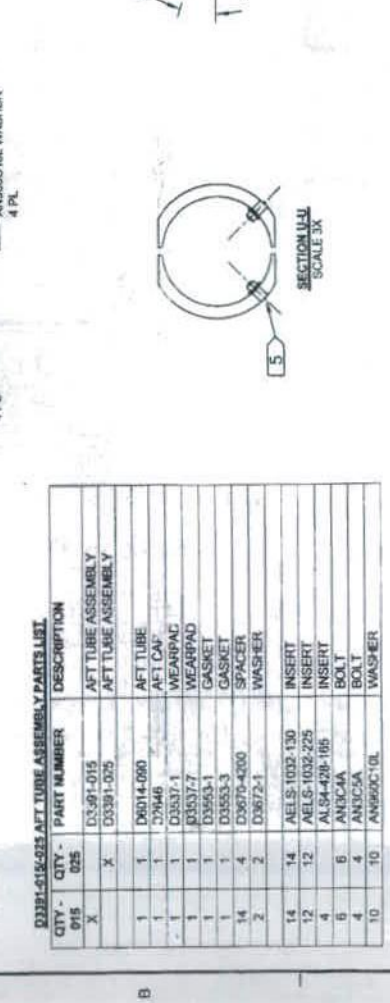
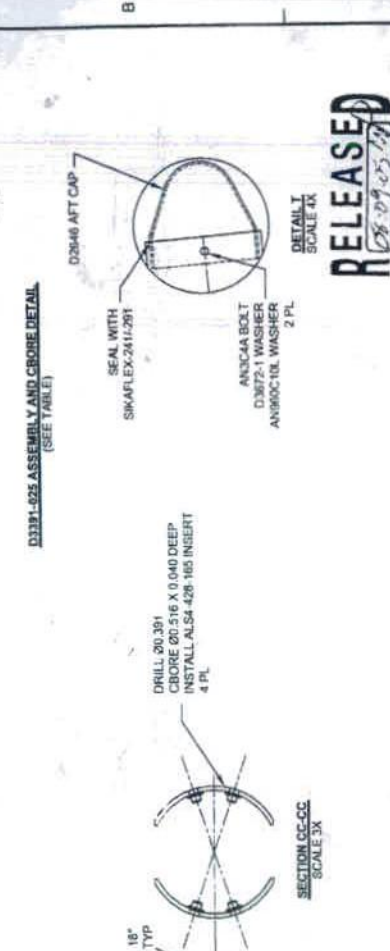
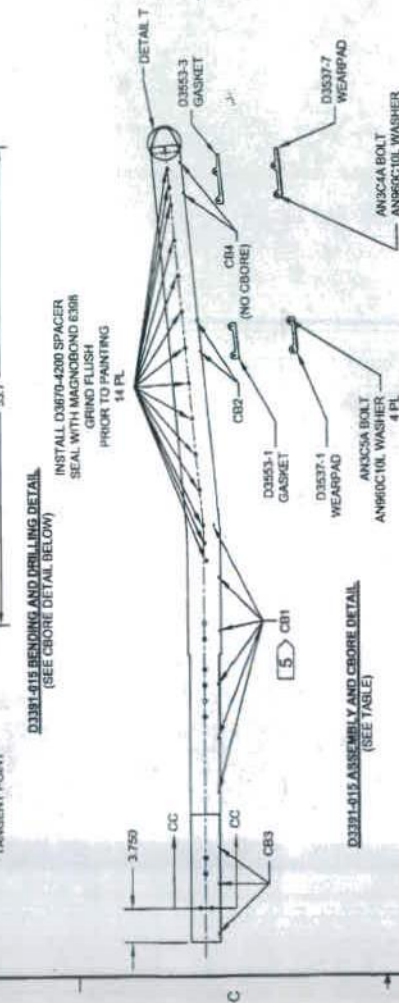
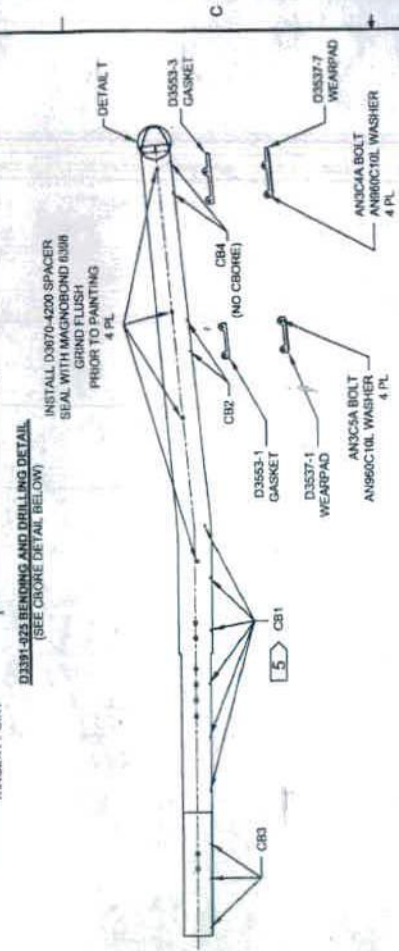
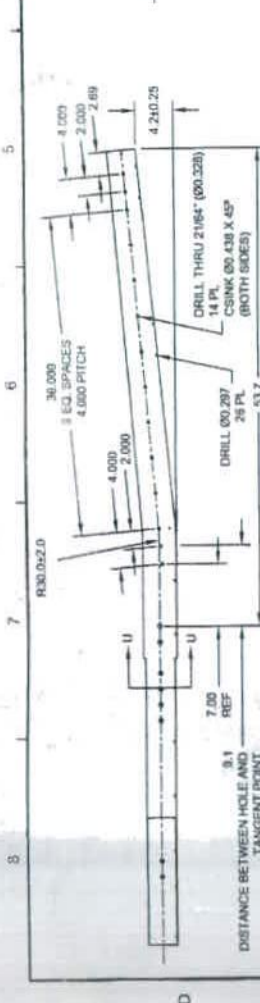
DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach.Cost	
16/11/2007	GREG01: Gregory, Marc	Run	1.000	0.52	\$6.98	1.09	28.38	
16/11/2007	ROQU01: Roquebrune, Benoît	Run	1.000	0.55	\$7.56	1.10	29.35	
16/11/2007	LACR01: Lacroix, Francis	Run	2.000	1.00	\$13.42	1.00	26.03	
Subtotal:	QTD:	4 CTD:	0	2.07	\$111.72			

29.0 QC5 Internal Operation

DATE	EMPLOYEE	TYPE	Qty	Time(hrs)	COST	MTime(hrs)	Mach.Cost	
16/11/2007	MURD02: Murdoch, Matthew	Run	3.000	1.11	\$17.26	1.11	0.00	
Subtotal:	QTD:	3 CTD:	0	1.11	\$17.26			

		TIME	COST
	Machine Time:	61.28	\$1620.05
	Labor:	60.14	\$1050.90
	Sub-contract (external Op.):		\$0.00
	INVENTORY ITEM:		\$1530.91
	SUB-COMPONENT (SUB-JOB):		\$0.00
Total:			\$4201.86

COST PER UNIT: \$1400.62



CBORE HOLES MARKED CBI, CBI4 AS FOLLOWS AND INSTALL AELS-1032 XXXX AFTER FINISH AS NOTED			
HOLE MARKED	QTY	CBORE	PIN
CBI	12	Ø0.430 X 0.170	AELS-1032-225
CBI1	4	Ø0.430 X 0.170	AELS-1032-130
CBI2	4	Ø0.430 X 0.170	AELS-1032-130
CBI3	4	Ø0.430 X 0.040	AELS-1032-130
CBI4	6	NONE	AELS-1032-130

DESIGN		PH	08.08.20 DATE
DRAWN		AJS	
CHECKED	✓		
MFG. APPR			
APPROVED			
DRAWING NO.		REV. H	
D3391		SHEET 1 OF 8	
TITLE		SCALE	
412 FLOAT SKIDTUBE		NTS	
COPYRIGHT © 2003 BY DART AEROSPACE USA, INC. ALL RIGHTS RESERVED. NO PART OF THIS PUBLICATION MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM DART AEROSPACE USA, INC.			

DART AEROSPACE USA, INC	
PORT HADLOCK, WA	

1
2
3
4
5
6
7

SHOP COPY
RETURN TO
ENGINEERING
CONTROLLED C
ECT TO AMENDM
WITHOUT NOTICE
WORK ORDER
47065

